



November 12, 2008

Jill Allmon
Loudoun County Government
1 Harrison Street, S.E.
Leesburg, VA 20175

Dear Jill,

I am responding to your recent inquiry regarding the supporting materials submitted to Loudoun County concerning the Broadlands Regional Medical Center (BRMC) project. As we discussed during our call last week with Mark Looney and Van Armstrong, those materials (prepared by First Chesapeake Group or FCG) provide population-based drive time comparisons validating the location of BRMC. That analysis used as its reference points the County's projected population by zip code, which then was overlaid against MapQuest's projected travel time from the centroid of each zip code.

You have requested we perform a like analysis using the Traffic Area Zone (TAZ) population data for Loudoun County you recently provided us. We have completed that comparison, and I would like to describe our process and findings for you.

Exhibits

Travel Times and Population Between Broadlands and Dulles South

- Exhibit A: Zip Code Analysis (Prepared by FCG)
- Exhibit B: Planning Sub-area Analysis – Comparative Data Sources (Claritas, Loudoun County)
- Exhibit C: Exhibit B Adjusted for Planning Sub-area Anomalies

- Map 1: Loudoun County Planning Sub-areas by Zip Code (FCG)
- Map 2: Loudoun County Population Distribution – 2010 (Urban)
- Map 3: Loudoun County TAZs – July 2007 (Loudoun County)

Population Data Source Discussion

The use of Claritas demographic data in FCG's original analysis (Exhibit A) is based on the reputation of Claritas as the most credible and accurate industry resource of its type for well over thirty years. While FCG, and HCA, have evaluated many demographic resources and packages, Claritas was chosen as our primary resource as it can be consistently applied as a predictable standard underwritten by a sound mathematical methodology. I also know, due to my work on the Virginia Department of Health (VDH) State Medical Facilities Plan (SMFP) Committee, that the VDH is likely moving toward adopting Claritas as a standard source of population data, in lieu of the traditional

7300 Beaufont Springs Drive, Suite 101
Richmond, VA 23225
(804)327-7658 – Fax: (804)327-7655



Virginia Employment Commission estimates, for decision-making on health care projects across the Commonwealth. That said, Claritas does use historical growth rates to predict future growth, creating some potential to understate the population during growth phases, and overstate it during declines.

Loudoun County's population estimation method is localized. As you have explained to me, the baseline is the 2000 Federal Census. Actual permitting and construction in the County, and a estimation of lives per household, is added to the 2000 Federal Census to gain current and future population estimates. I understand this is a detailed approach directed at meeting the County's planning needs.

Analysis

Completing a truly comparative analysis using the two data sources necessitated conversion of the TAZ data to the standard planning sub-areas identified in Loudoun County. This method was requested as the FCG analysis was performed by zip code, and while the zip codes could not be cross-walked to the TAZs, the planning sub-areas in the FCG analysis could be cross-walked to the TAZs, allowing a more reasonable comparison with incorporation of the TAZ population data. Accordingly, we are now providing a series of cohesive supporting exhibits, as follows:

Exhibit A: Zip Code Analysis (Prepared by FCG)

- Includes the areas of Upperville and Bluemont, which straddle the lines of two counties
- Uses Claritas data by zip code
- Extrapolates 2010 projected population from the 2007 to 2012 projected growth rate available in Claritas
- *Conclusion: 90% of the population in 2010 will be closer to Broadlands than Dulles South*

Exhibit B: Planning Sub-area Analysis – Comparative Data Sources (Claritas, Loudoun County)

- Includes the areas of Upperville and Bluemont
- Includes Claritas data by zip code as well as Loudoun County TAZ data
- Extrapolates 2010 projected population from the 2007 to 2012 projected growth rate available in Claritas
- The TAZ population data is cross-walked to the County's planning sub-areas per the resources you provided*, allowing comparison of the Claritas and TAZ data
- An accurate comparison of planning sub-area centroid drive times is made available via this approach
- *Conclusion: 89% of the population in 2010 will be closer to Broadlands than Dulles South per Claritas; 83% of the population in 2010 will be closer to Broadlands than Dulles South per TAZ data*



Exhibit C: Exhibit B Adjusted for Planning Sub-area Anomalies

- Provides a final comparative model
- Identical to Exhibit B in method, Exhibit C moves TAZ 1813 from the Dulles sub-area to the Ashburn sub-area on the basis of community specific trends and utility.
- *Conclusion: 89% of the population in 2010 will be closer to Broadlands than Dulles South per Claritas; 85% of the population in 2010 will be closer to Broadlands than Dulles South per TAZ data*

*Exhibits B and C are adjusted for the joint location of TAZs 1838 and 1905 in both the Ashburn and Leesburg planning sub-areas by dividing the given population of each TAZ evenly in each of those sub-areas.

Conclusion

Using either population data sources/methods, the analysis supports the same conclusion. The Ashburn location of BRMC provides greater access for a higher percentage of the population of Loudoun County when compared to the Dulles South site.

Jill, we very much appreciate the information and assistance you have provided us. I am certainly glad to answer any other questions that you may have.

Sincerely,

Theresa Noe
Vice President, Strategic Planning
HCA Capital Division

CC: Van Armstrong
Mark Looney
Tracey White

Exhibit A - Zip code analysis**Travel Times and Population Between Broadlands and Dulles South***Loudoun County Zipcodes (including all of Upperville and Bluemont)*

Community	Planning Subarea	Zipcode	Population		Travel Time		30 Minute Standard	
			2010	2020	Dulles South	Broadlands	Dulles South	Broadlands
Aldie	Route 15 South	20105	3,942	7,421	:05	:16	Yes	Yes
Arcola	Dulles	20107	80	164	:05	:07	Yes	Yes
Middleburg	Southwest	20117	3,871	4,734	:22	:33	Yes	Yes
Paeonian Springs	Leesburg	20129	622	992	:26	:15	Yes	Yes
Purcellville	Route 7 West	20132	15,903	25,332	:32	:21		Yes
Bluemont*	Southwest	20135	3,268	4,119	:41	:30		Yes
Round Hill	Route 7 West	20141	5,574	8,514	:35	:24		Yes
Ashburn	Ashburn	20147	74,774	136,592	:19	:08	Yes	Yes
Ashburn	Ashburn	20148	14,342	29,298	:11	:09	Yes	Yes
Chantilly	Dulles	20152	23,966	49,631	:07	:17	Yes	Yes
Hamilton	Route 7 West	20158	4,754	6,583	:26	:16	Yes	Yes
Sterling	Sterling	20164	44,058	55,186	:19	:16	Yes	Yes
Sterling	Sterling	20165	40,530	58,013	:23	:16	Yes	Yes
Sterling	Sterling	20166	7,454	11,993	:17	:11	Yes	Yes
Leesburg	Leesburg	20175	25,236	35,452	:16	:10	Yes	Yes
Leesburg	Leesburg	20176	42,043	72,240	:25	:13	Yes	Yes
Lovettsville	Northwest	20180	6,606	9,494	:41	:29		Yes
Upperville**	Southwest	20184	1,121	1,354	:32	:43		
Waterford	Northwest	20197	2,286	3,732	:31	:20		Yes
			320,430	520,846				

In 2010:	Dulles	
	South	Broadlands
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	Population within 30 minutes	
287,451 / 320,430	285,673	319,310
90% of the population will be closer to Broadlands when compared to Dulles South	89%	100%
In 2020:		
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	Population within 30 minutes	
457,542 / 520,846	468,301	519,492
88% of the population will be closer to Broadlands when compared to Dulles South	90%	100%

Source: Mapquest 12/06/2007; Claritas 2007 Population, 2010 interpolated, 2020 extrapolated; FCG calculations

* Bluemont (20135) is in both Clarke and Loudoun Counties. The total population in the zipcode is used for this analysis

** Upperville (20184) is in both Fauquier and Loudoun Counties. The total population in the zipcode is used for this analysis

Exhibit B - Planning Subarea - Comparative Data Sources

Travel Times and Population Between Broadlands and Dulles South

Loudoun County

Planning Subarea	Population				Travel Time (min.)		30 Minute Standard	
	Claritas		Loudoun County Source		Dulles South	Broadlands	Dulles South	Broadlands
	2010	2020	2010	2020				
Ashburn	89,116	165,890	83,052	108,919	:16	:08	Yes	Yes
Dulles	24,045	49,795	40,277	72,281	:01	:14	Yes	Yes
Leesburg	67,901	108,684	52,941	76,155	:16	:14	Yes	Yes
Northwest	8,892	13,225	11,074	16,574	:42	:34		
Potomac	40,530	58,013	43,554	45,938	:27	:22	Yes	Yes
Route 15 North			5,176	9,979	:34	:25		Yes
Route 15 South	3,942	7,421	3,892	6,570	:12	:18	Yes	Yes
Route 7 West	26,231	40,430	22,446	30,013	:33	:25		Yes
Southwest	8,260	10,208	7,722	9,577	:32	:42		
Sterling	51,513	67,180	30,992	33,901	:18	:15	Yes	Yes
Total	320,430	520,846	301,127	409,907				

In 2010 Claritas:

Population of the **Bolded** (BRMC is closer) Zipcodes/Total Population

284,183 / 320,430

89% of the population will be closer to Broadlands when compared to Dulles South

Dulles

South

Broadlands

Population within 30 minutes

277,047 303,278

86% 95%

In 2020 Claritas:

Population of the **Bolded** (BRMC is closer) Zipcodes/Total Population

453,422 / 520,846

87% of the population will be closer to Broadlands when compared to Dulles South

Population within 30 minutes

456,983 497,413

88% 96%

In 2010 LC Source:

Population of the **Bolded** (BRMC is closer) Zipcodes/Total Population

249,235 / 301,127

83% of the population will be closer to Broadlands when compared to Dulles South

Population within 30 minutes

254,708 282,330

85% 94%

In 2020 LC Source:

Population of the **Bolded** (BRMC is closer) Zipcodes/Total Population

321,479 / 409,907

78% of the population will be closer to Broadlands when compared to Dulles South

Population within 30 minutes

343,764 383,756

84% 94%

Source: Mapquest 11/06/2008; Claritas population for 2010 & 2020 extrapolated from 2007 & 2012 growth rates by zip code. This analysis includes Bluemont (20135) because it is in both Clarke and Loudoun Counties and Upperville (20184) because it is in both Fauquier and Loudoun Counties: Loudoun County Population by TAZ provided by Jill Allmon

Exhibit C - Planning Subarea - Comparative Data Sources (ADJUSTED)
Travel Times and Population Between Broadlands and Dulles South

Loudoun County

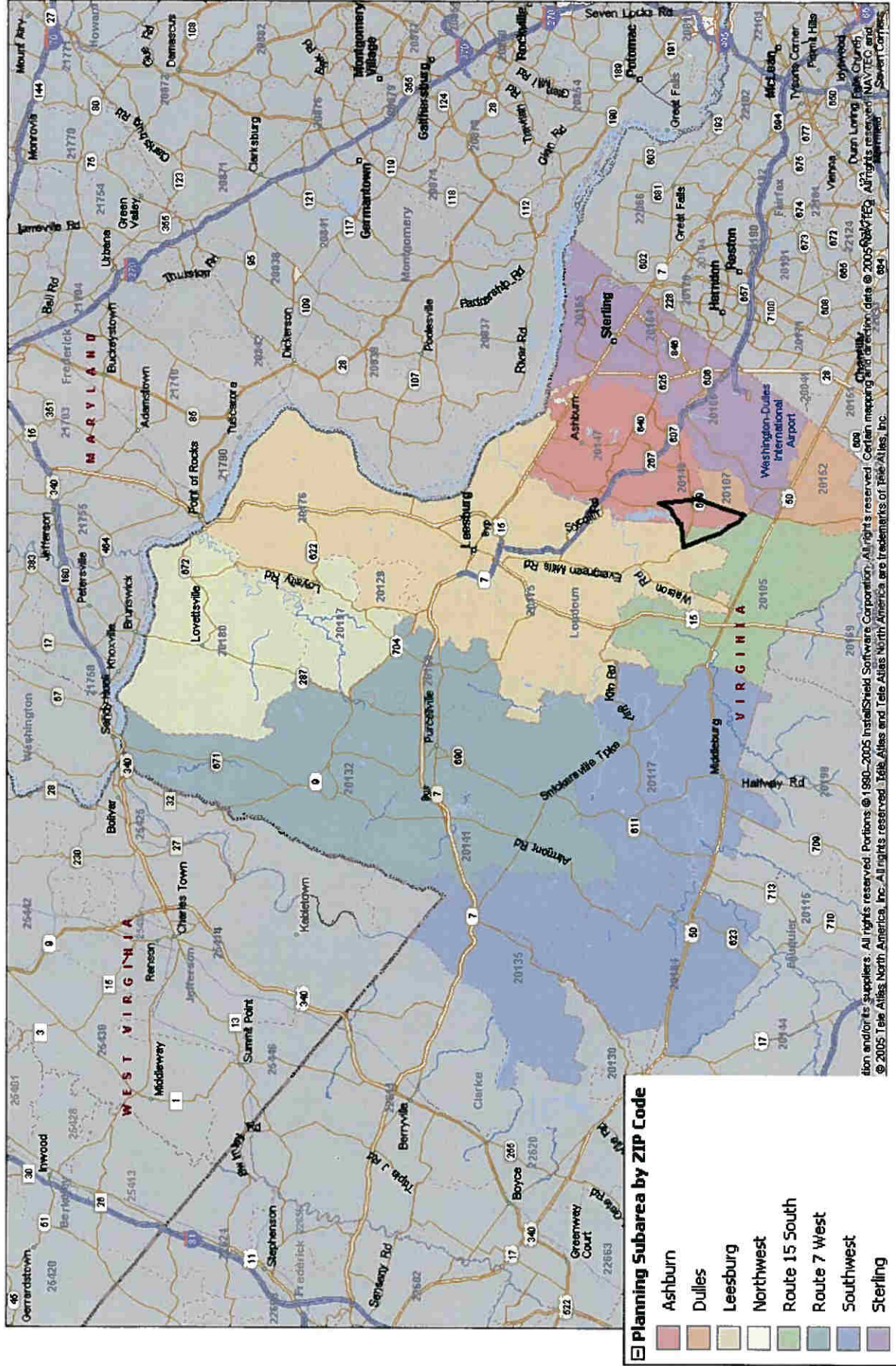
Planning Subarea	Population				Travel Time (min.)		30 Minute Standard	
	Claritas		Loudoun County Source		Dulles South	Broadlands	Dulles South	Broadlands
	2010	2020	2010	2020				
Ashburn	89,116	165,890	88,472	121,771	:16	:08	Yes	Yes
Dulles	24,045	49,795	34,857	59,429	:01	:14	Yes	Yes
Leesburg	67,901	108,684	52,941	76,155	:16	:14	Yes	Yes
Northwest	8,892	13,225	11,074	16,574	:42	:34		
Potomac	40,530	58,013	43,554	45,938	:27	:22	Yes	Yes
Route 15 North			5,176	9,979	:34	:25		Yes
Route 15 South	3,942	7,421	3,892	6,570	:12	:18	Yes	Yes
Route 7 West	26,231	40,430	22,446	30,013	:33	:25		Yes
Southwest	8,260	10,208	7,722	9,577	:32	:42		
Sterling	51,513	67,180	30,992	33,901	:18	:15	Yes	Yes
Total	320,430	520,846	301,127	409,907				

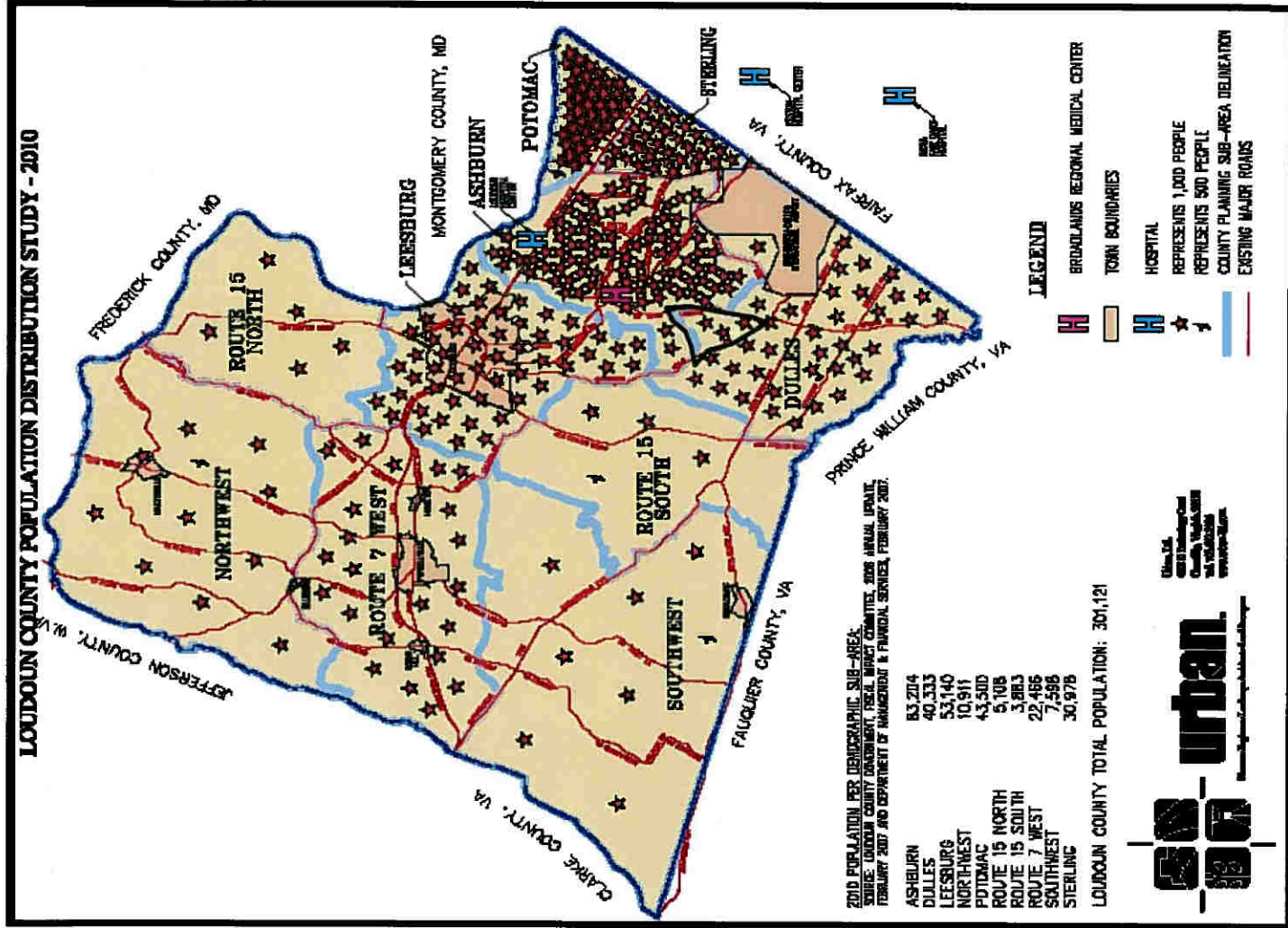
In 2010 Claritas:	Dulles South Broadlands	
	Population within 30 minutes	
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	277,047	303,278
284,183 / 320,430	86%	95%
89% of the population will be closer to Broadlands when compared to Dulles South		
In 2020 Claritas:	Dulles South Broadlands	
	Population within 30 minutes	
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	456,983	497,413
453,422 / 520,846	88%	96%
87% of the population will be closer to Broadlands when compared to Dulles South		
In 2010 LC Source:	Dulles South Broadlands	
	Population within 30 minutes	
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	254,708	282,330
254,655 / 301,127	85%	94%
85% of the population will be closer to Broadlands when compared to Dulles South		
In 2020 LC Source:	Dulles South Broadlands	
	Population within 30 minutes	
Population of the Bolded (BRMC is closer) Zipcodes/Total Population	343,764	383,756
334,331 / 409,907	84%	94%
82% of the population will be closer to Broadlands when compared to Dulles South		

Source: Mapquest 11/06/2008; Claritas population for 2010 & 2020 extrapolated from 2007 & 2012 growth rates by zip code. This analysis includes Bluemont (20135) because it is in both Clarke and Loudoun Counties and Upperville (20184) because it is in both Fauquier and Loudoun Counties: Loudoun County Population by TAZ provided by Jill Allmon; Modifications: TAZ 1813 was moved from Dulles into Ashburn Planning Subarea.

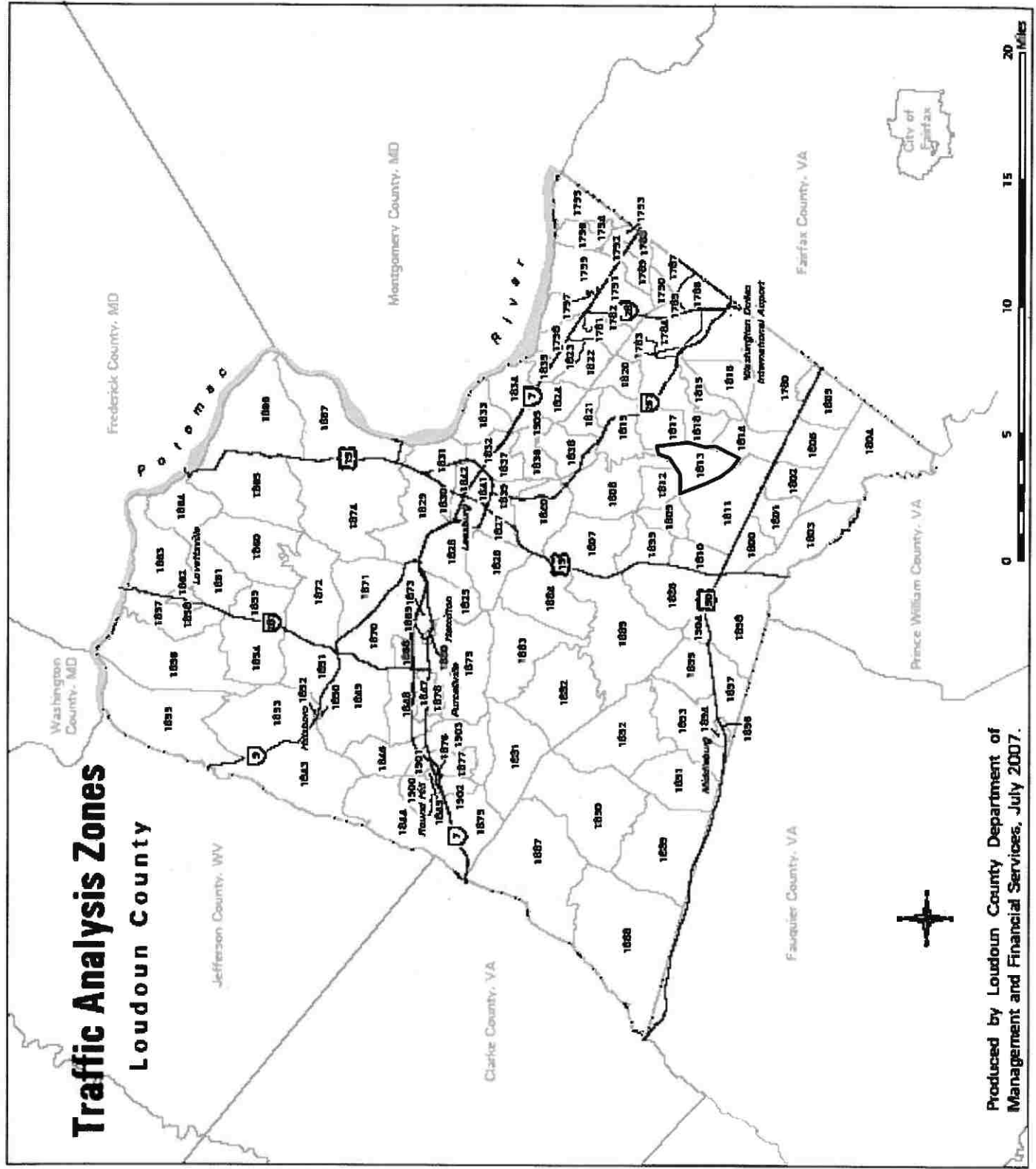
Map 1

Loudoun County plus Upperville & Bluemont — Planning sub area rollup map based on Original FCG zip codes





Map 3



Travel Times and Population Between Broadlands and Dulles South

Loudoun County TAZs

TAZ	Planning Subarea	Population			Travel Time		30 Minute Standard	
		2010	2015	2020	Dulles		Dulles	
					South	Broadlands	South	Broadlands
1780	Dulles	57	57	57	8	13	Yes	Yes
1781	Ashburn	13	13	13	17	12	Yes	Yes
1782	Ashburn	-	-	-	16	12	Yes	Yes
1783	Ashburn	1	1	1	14	9	Yes	Yes
1784	Ashburn	12	12	12	12	10	Yes	Yes
1785	Sterling	889	889	889	15	13	Yes	Yes
1786	Sterling	1,551	1,592	3,409	12	10	Yes	Yes
1787	Sterling	9,328	9,341	9,382	18	16	Yes	Yes
1788	Sterling	5,542	5,548	5,555	21	18	Yes	Yes
1789	Sterling	2,733	3,007	3,007	20	14	Yes	Yes
1790	Sterling	5,916	5,916	5,916	18	13	Yes	Yes
1791	Sterling	5,034	5,610	5,743	19	14	Yes	Yes
1792	Potomac	4,030	4,030	4,214	21	18	Yes	Yes
1793	Potomac	673	673	686	21	18	Yes	Yes
1794	Potomac	2,098	2,098	2,316	25	20	Yes	Yes
1795	Potomac	9,855	10,194	10,194	29	24	Yes	Yes
1796	Potomac	8,692	8,692	8,692	24	19	Yes	Yes
1797	Potomac	4,107	4,304	5,025	22	15	Yes	Yes
1798	Ashburn	3,063	3,063	3,063	21	11	Yes	Yes
1799	Potomac	14,098	14,310	14,811	22	17	Yes	Yes
1800	Dulles	1,020	1,097	1,235	7	21	Yes	Yes
1801	Dulles	140	452	606	5	19	Yes	Yes
1802	Dulles	8,551	15,116	16,442	2	16	Yes	Yes
1803	Dulles	211	588	681	19	33	Yes	
1804	Dulles	1,080	3,015	6,545	4	19	Yes	Yes
1805	Dulles	11,412	13,827	14,546	7	21	Yes	Yes
1806	Dulles	11,147	11,964	12,409	5	19	Yes	Yes
1807	Route 15S	1,228	1,411	1,626	13	17	Yes	Yes
1808	Leesburg	1,423	1,891	2,029	19	10	Yes	Yes
1809	Dulles	671	832	970	11	15	Yes	Yes
1810	Route 15S	295	462	600	8	20	Yes	Yes
1811	Dulles	356	769	1,512	5	20	Yes	Yes
1812	Ashburn	387	480	743	11	16	Yes	Yes
1813	Dulles	5,420	9,217	12,852	4	9	Yes	Yes
1814	Dulles	202	2,022	4,418	2	12	Yes	Yes
1815	Ashburn	648	648	648	7	12	Yes	Yes
1816	Dulles	9	9	9	8	13	Yes	Yes
1817	Ashburn	9,285	10,995	13,048	16	7	Yes	Yes
1818	Ashburn	10,074	13,381	19,142	8	8	Yes	Yes
1819	Ashburn	13,796	14,905	15,031	13	1	Yes	Yes
1820	Ashburn	5,497	6,042	6,042	15	5	Yes	Yes
1821	Ashburn	8,817	8,817	8,817	14	4	Yes	Yes
1822	Ashburn	11,966	14,402	16,496	19	8	Yes	Yes
1823	Ashburn	2,877	4,187	5,360	20	9	Yes	Yes
1824	Ashburn	7,559	7,559	7,559	10	18	Yes	Yes
1825	Route 7W	251	257	498	25	17	Yes	Yes
1826	Leesburg	488	636	1,018	20	18	Yes	Yes

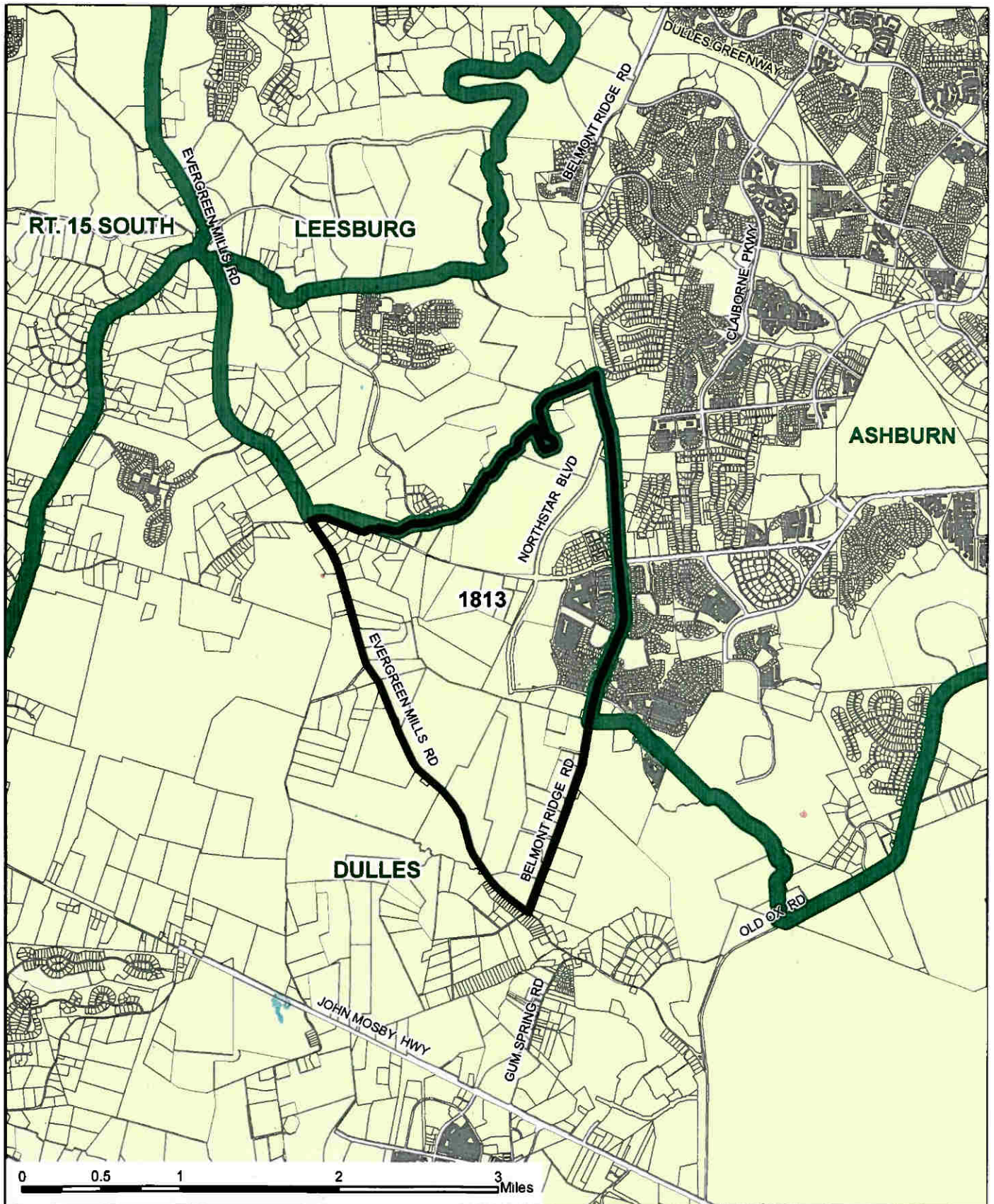
1827 Leesburg	4,578	4,655	4,732	20	12	Yes	Yes
1828 Leesburg	892	1,046	1,168	23	14	Yes	Yes
1829 Leesburg	1,164	1,286	1,424	24	15	Yes	Yes
1830 Leesburg	588	620	620	23	14	Yes	Yes
1831 Leesburg	8,534	8,688	8,749	23	13	Yes	Yes
1832 Leesburg	3,443	3,942	5,435	21	13	Yes	Yes
1833 Leesburg	8,931	9,861	11,231	23	15	Yes	Yes
1834 Ashburn	9,028	11,634	11,634	20	12	Yes	Yes
1835 Ashburn	-	-	-	20	10	Yes	Yes
1836 Leesburg	87	87	87	21	14	Yes	Yes
1837 Leesburg	3,714	4,349	9,210	21	12	Yes	Yes
1838 Leesburg	36	1,533	2,599	23	18	Yes	Yes
1839 Leesburg	3,517	6,174	8,764	17	12	Yes	Yes
1840 Leesburg	867	2,987	4,774	12	14	Yes	Yes
1841 Leesburg	7,602	7,906	8,364	19	11	Yes	Yes
1842 Leesburg	7,084	7,084	7,239	23	13	Yes	Yes
1843 Northwest	618	782	994	42	34		
1844 Route 7W	836	939	1,372	50	38		
1845 Route 7W	462	475	488	40	27		Yes
1846 Route 7W	492	495	543	47	29		Yes
1847 Route 7W	3,145	3,256	3,288	41	22		Yes
1848 Route 7W	992	1,531	2,245	40	24		Yes
1849 Route 7W	813	842	1,217	36	28		Yes
1850 Northwest	41	41	41	34	26		Yes
1851 Northwest	525	695	913	35	27		Yes
1852 Northwest	43	43	43	37	29		Yes
1853 Northwest	485	687	944	41	22		Yes
1854 Northwest	839	1,087	1,311	39	31		
1855 Northwest	494	555	635	45	37		
1856 Northwest	1,174	1,569	2,073	55	47		
1857 Northwest	810	1,053	1,229	51	43		
1858 Northwest	1,060	1,272	1,275	40	32		
1859 Northwest	432	464	506	37	29		Yes
1860 Northwest	595	676	775	38	30		Yes
1861 Northwest	624	787	999	44	36		
1862 Northwest	1,113	1,139	1,142	51	43		
1863 Northwest	962	1,238	1,588	48	41		
1864 Northwest	650	920	1,183	48	41		
1865 Route 15N	1,333	1,628	2,177	37	27		Yes
1866 Route 15N	1,258	2,139	2,945	35	26		Yes
1867 Route 15N	479	578	854	34	24		Yes
1868 Route 7W	248	248	248	33	25		Yes
1869 Route 7W	442	449	455	25	17	Yes	Yes
1870 Route 7W	1,389	1,427	1,812	32	24		Yes
1871 Route 7W	838	854	1,130	28	20	Yes	Yes
1872 Northwest	607	745	922	37	29		Yes
1873 Route 7W	829	928	935	28	20	Yes	Yes
1874 Route 15N	2,106	3,072	4,003	37	28		Yes
1875 Route 7W	733	746	942	41	26		Yes
1876 Route 7W	120	126	133	40	25		Yes
1877 Route 7W	1,032	1,170	1,670	38	34		
1878 Route 7W	2,571	2,687	2,844	31	25		Yes

1879 Route 7W	3,866	4,142	4,418	28	22	Yes	Yes
1880 Route 7W	220	252	268	25	18	Yes	Yes
1881 Southwest	868	1,067	1,311	25	33	Yes	
1882 Southwest	1,248	1,376	1,614	30	44	Yes	
1883 Southwest	661	739	905	25	23	Yes	Yes
1884 Route 15S	487	609	872	20	17	Yes	Yes
1885 Route 15S	539	716	931	18	22	Yes	Yes
1886 Route 15S	207	281	435	14	28	Yes	Yes
1887 Southwest	888	955	1,065	48	38		
1888 Southwest	315	335	363	39	53		
1889 Southwest	321	334	353	33	47		
1890 Southwest	732	783	866	37	51		
1891 Southwest	383	390	399	26	41	Yes	
1892 Southwest	700	738	803	38	52		
1893 Southwest	364	384	412	27	41	Yes	
1894 Southwest	584	712	738	19	33	Yes	
1895 Southwest	162	162	191	17	31	Yes	
1896 Southwest	103	103	103	18	33	Yes	
1897 Southwest	393	418	454	16	30	Yes	Yes
1898 Route 15S	627	732	912	14	28	Yes	Yes
1899 Route 15S	436	753	1,090	12	17	Yes	Yes
1900 Route 7W	1,071	1,527	1,889	44	31		
1901 Route 7W	1,280	1,748	1,903	44	31		
1902 Route 7W	366	472	697	42	27		Yes
1903 Route 7W	453	742	1,018	41	31		
1904 Route 15S	74	90	103	13	27	Yes	Yes
1905 Ashburn	24	24	24	19	10	Yes	Yes
	301,127	354,107	409,907				

Additional analysis not provided by applicant

Broadlands Closer	247,948	277,891	316,128
	82%	78%	77%
Dulles South 30 Minutes	265,922	311,363	357,596
	88%	88%	87%
Broadlands 30 Min	281,231	329,655	380,727
	93%	93%	93%

TRAFFIC ANALYSIS ZONE 1813



TRAFFIC ANALYSIS ZONE 1813

